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The Risk of Premarital Sex among Thai Youth: Individual and Family Influences

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INTRODUCTION

Recent research on adolescents and youth has been dominated by interests in the dynamic demography of this population and in its high-profile risk-behaviors. Some of these, such as pre-marital sexual intercourse, bear significant policy implications. Advancements have been made in research on youth demography; their number, distribution and changes have been well documented by demographers. One such study, at the macro-societal level, demonstrates the patterns, path and components of youth demographic transition for different countries in the Asian region (Xenos and Kabamalan 1998). Behavioral studies of youth, on the other hand, have focused increasingly on reproductive health behaviors and related issues. Of these, adolescent and youth sexuality has been receiving considerable attention.

The main objective of this study is to identify correlates of premarital sex as an important form of risk-taking among Thai youth.[1] Our analysis draws upon the framing assumption that, as a primary social unit, the family provides individuals with socialization, protection and support in various aspects of their lives including protection from harmful behaviors of different forms. It is often stated that strong family background, defined in terms of a stable family structure and smooth family processes, can function as a protective and preventive mechanism against risk taking behaviors such as premarital and unsafe sexual practices (for example, Rodger 1999). Yet, the family may not be the only precursor that plays an important role. Indeed, the decision to engage or not to engage in any risky behavior falls ultimately on individual actors. Moreover, individual decisions and actions may be influenced considerably by aspects of personal background and orientation. It is appropriate, therefore, for this analysis to take into account factors at both the individual and family levels.

Previous investigators have identified different types of family influences and measures of them.[2] The measures included most often in recent analyses may be grouped conveniently into three types: parental characteristics, family structure and family process. Parental characteristics are mainly measures of parental socio-economic status such as education and income but may also include parental attitudes about sexual behavior and other matters. Family structure includes measures of living arrangements and marital statuses of parents, while family process includes measures of relationships within the family and also indicators of parent-adolescent communications and parental authority and monitoring styles. Several individual factors have also been investigated as precursors of adolescent sexual activity. These included psychological and social characteristics of adolescents and youth such as self-esteem, academic performance, sexual attitudes, alcohol consumption and negative behaviors of peers. The following sections briefly examine important findings from selected previous studies.

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[1] Note that the terms "adolescent" and "youth" are used interchangeably here to refer to the males and females aged 15-24 who are the subjects of our analysis.

[2] Besides the references cited below, excellent overall reviews are provided in Kirby (1999) and Jessor, Turbin and Costa (1998, 1999).

Parental characteristics: Adolescent sexual behavior is linked to the socioeconomic status of the family, primarily through the education and incomes of the parents. Later onset of sexual intercourse and lower teen pregnancy rates are related to higher family incomes (Inazu and Fox 1980; Hogan and Kitagawa 1985). Likewise, higher levels of parental education have been associated with lower adolescent sexual activity, delayed sexual initiation, safer sexual practices and lower risks of pregnancy (Fortste and Heaton 1988; Kahn et al. 1990; Hayward et al. 1992). Sexual activity of adolescents is significantly related to parental sexual attitudes. Generally, a traditional attitude is associated with lower risk, a permissive attitude with higher risk. Jaccard, Dittus and Gordon (1996) found that perceived maternal disapproval of premarital sex, together with satisfaction with the mother-child relationship, was significantly related to abstinence from adolescent sexual activity and to less frequent sexual intercourse and more consistent use of contraceptives among sexually active youth. A study of White adolescents aged 15 and 16 in the United States also revealed that daughters of traditional parents who communicated with them about sex or about television were less likely to have had intercourse (Moore et al. 1986).

Family structure: Living in the family with both parents implies the availability of support, supervision and behavioral control in many aspects of adolescents' lives. Previous studies commonly suggest that youth in two-parent families are less likely to risk premarital sexual activity. A study of adolescents from Black and White families in the United States found that, for males, the two-parent family was related to less sexual activity and older ages at first intercourse. For females, however, the effect of a two-parent household was not as important as race in influencing sexual behavior (Young et al. 1991). Upchurch et al. (1999) found that teenagers living in single-parent or reconstituted families (i.e., families with stepparents) had higher risks of sexual intercourse compared to those from two-parent or intact families. A different effect of family structure, however, was reported in a study by Miller, Forehand and Kotchick (1999) who found that family structural variables (family income, parental education and maternal marital status) failed to predict adolescent sexual behavior.

Family process: Family process involves relationships, communication and control within the family. Adolescents who have greater satisfaction in relationships with their mothers are less likely to be sexually active and to initiate intercourse later than those with less satisfaction in the relationship with their mothers (Jaccard et al. 1996). Parent-adolescent communication and its correlation to adolescent sexual behavior is a subject that has been thoroughly researched, perhaps more than any other parental influence in this area (Meschke et al., 2000). Yet, results are not always in agreement. Some investigators found no relationship between parent-adolescent communication and teen sexual behavior (Casper 1986; Miller et al. 1986). Others found higher levels of parental communication to increase the likelihood of sexual activity of adolescents (Widmer 1997). Still others found a high quality of communication to be related to a decreased likelihood of intercourse, delayed first sex for boys, decreased likelihood of daughters being pregnant, and increased contraceptive use for daughters (East 1996; Fisher 1987; Leland and Barth 1993; Pick and Palo 1995; Miller et al. 1999).

Parental control is another aspect of family process that is examined by many researchers. Most studies discuss this under the concept of parental monitoring. Generally, it is measured in terms of the extent to which parents know the whereabouts of their children and show an interest in whom their adolescent children spend time with and in what their adolescents do in their free time. Most research supports the notion that a higher level of parental monitoring is related to delay of sexual intercourse (Ku et al. 1993), fewer partners and greater use of contraceptives (Luster and Small 1994; Miller et al. 1999; Rodger 1999).

Some studies have assessed effects of siblings on adolescent sexual behavior. It is argued that, as socialization agents, siblings may set standards of conduct or serve as role models. Moreover, siblings often bear a similarity to each other in terms of social structural position within the family,

greater than the similarities they have with their parents. Individuals tend to alter their behavior and attitudes to conform to others they perceive as similar or sharing common characteristics that are relevant to the behavior in question. Haurin and Mott (1990) examined this issue among White and Black siblings in the U.S. and found that, for White boys and girls, there are significant and meaningful direct linkages between the age of sexual initiation of older and younger siblings; however, this is not the case for Black siblings. The presence of sexually active sisters and adolescent childbearing sisters is associated with permissive sexual attitudes, positive intentions for future sexual activity, and a greater likelihood of being a non-virgin. Similar sibling effects are confirmed by the finding from Widmer's analysis which indicates that the sexual behavior of older brothers has a significant influence on the timing of younger siblings' initiation into sexual intercourse (Widmer 1997).

Individual characteristics: Self-esteem seems to have a mixed influence on adolescent sexuality. A review of the literature by Chilman reveals that low self-esteem is associated with early intercourse in girls but not in boys (Chilman 1979). This is in contrast to the review by Flick which suggests that high self-esteem is associated with early sexual activity in males (Flick 1986). Another review of other studies, however, concludes that there is no relation between self-esteem and sexual activity of either males or females (Hayes 1987 cited in Small and Luster 1994). A recent analysis found that a higher level of self-esteem was negatively related to early intercourse among adolescents in grades 8 through 10 in the United States (Witbeck et al. 1999). Low academic performance, assessed in terms of grade point average, is one of the most important "risk factors" for sexual intercourse among adolescents (Small and Luster 1994; Perkins et al. 1998; Luster and Small 1994). Sexual activity of teenagers is found to be related to permissive sexual attitudes (Whitbeck et al. 1999), alcohol consumption (Luster and Small 1994; Small and Luster 1994; Perkins et al. 1998), and negative or delinquent behavior of peers (Small and Kerns 1993; Whitbeck et al. 1999)

The studies reviewed above were all conducted in Western settings; similar studies conducted in developing countries are lacking. Nevertheless, we believe that many family and individual measures that were found to be good correlates of adolescent and youth sexuality in a Western context will show similar effects in settings such as Thailand. In this study, we use some of the measures employed in previous analyses to explore the premarital sexual behavior of Thai youth.

PREMARITAL SEX IN THAILAND

Since the AIDS epidemic was first identified in Thailand nearly two decades ago, sexuality—as the major means of HIV transmission (Weniger et al. 1991)—has become a prime subject of studies among health and social scientists. In the earlier years and until recently, most studies focused on identifying the timing of the onset of sex, the number and types of sexual partner (recent and lifetime), and whether or not sexual practices are "safe." This focus includes investigation into knowledge and attitudes about HIV/AIDS and STIs, and methods to protect against transmission of these diseases. Most of the studies drew samples from so-called "risk groups," mainly female commercial sex workers (CSWs) and their clients. As the spread of HIV advanced beyond these risk groups into the general population, study samples were diversified to include other selected sub-groups such as truck drivers, factory workers, adolescents in school and military conscripts. The brief review below takes account of selected studies only and focuses mainly on the issues most relevant to the purpose of the present paper.

Outside the commercial sex industry, norms regarding premarital sex among unmarried women are fairly restrictive, although women's premarital sex is not unknown even in rural areas (Klausner 1987) and is believed to be increasing as the country becomes more industrialized.

Nonetheless, expectations that women should be sexually inexperienced at marriage are still widespread. This is demonstrated by the responses of adolescents and youth in a survey in which respondents were asked about the acceptability of premarital sex (Prasartkul et al. 1987). Males and females are markedly different. For three-fourths of rural men and more than four-fifths of urban men, premarital sex is acceptable, but this is the case for only about two-fifths of women. Reports of premarital sex were more common among males, but less common, or even "rare", among females. This pattern is consistent across most studies (for example, Sittitrai et al. 1992; McNamara 1994; Israbhakdi 1995).

The marked difference in reported sexual behavior between men and women in Thai society has been explained in terms of the differential sexual freedom of the two genders. We believe that while this is true, sexual norms alone are not sufficient to account fully for the low reports of premarital sex among women that are evident in most studies. We suspect that the field procedures for data collection have much to do with the observed difference. Because of normative expectations, women may be less open about their sexual behavior, especially when face-to-face interviews are conducted as in the case of the surveys referred to above.

The onset of sexual experience varies in age pattern between men and women and according to population sub-groups. A large-scale survey of the general population in 1990 shows the median age at onset of first sex to be 18 for males and 21 for females (Sittitrai et al. 1992). Other studies reported earlier medians. Among male youth from low-income communities of Bangkok and an urban center in the Northeast the median age at first sexual intercourse is 16 years (Podhisita et al. 1994); for female youth, more than three-fourths had first sexual intercourse before the age of 20 (McNamara 1994). A study of unmarried men (students, soldiers, clerical workers and construction workers) in the North revealed a life table median age at first intercourse of 19 for the entire sample, but for soldiers and workers the medians were 17 and 18, respectively (VanLandingham et al. 1993). Among military conscripts in Northern Thailand (aged 21 years old) more than half (54 per cent) of the sample who ever had sexual intercourse had it for the first time by age 16 (Nopkesorn et al. 1991, 1993). Nearly all these young men had sexual intercourse before they were married.

It is widely believed that most Thai young men have their "first sexual lesson" (*khuen kruu)*[3] with commercial sex workers. This belief is reasonable given the relatively easy access to commercial sex. Survey results seem to confirm this. Among military conscripts, for example, about three out of four men had their first intercourse with commercial sex partners (Nopkesorn et al. 1991, 1993). Other studies, however, report smaller proportions having first sex commercially—usually less than 50 per cent, especially among youth (Podhisita et al. 1994; Israbhakdi 1995). It may be the case that in the past the proportion of young people having first intercourse with commercial sex workers was greater than more recently. Reduced rates in recent years, if this trend is genuine, may be a positive response to intensive campaigns against HIV/AIDS.

The existing literature clearly indicates that premarital sex is not uncommon among Thai youth. Some are concerned that increasing numbers of youth today experience sexual intercourse early in their lives. Others are concerned that as the country becomes more modernized, social and economic environments become more conducive to early sexual activity among adolescents while the family institution steadily loses its power to control their behavior. Based on the data from a national survey, this paper will identify individual and family correlates of premarital sex among youth in contemporary Thailand.

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[3] Literal translations are difficult but "approach to the master" or "taking the first lesson with the experienced" convey the idea. The relevant point from this is that the term *khuen kruu* has long been employed in reference to traditional forms of apprenticeship to scholars (*kruu*).

DATA AND METHODS

This paper is based on data from the Family and Youth Survey (FAYS), conducted in 1994 by the Institute for Population and Social Research (IPSR), Mahidol University, with financial support from the United Nation Population Fund (UNFPA) (Podhisita and Pattaravanich 1995). The fieldwork for this national survey was conducted between March and May 1994 and involved interviews with 2,180 male and female youth from both urban and rural areas in all regions of the country. A multistaged, stratified sampling technique was employed to produce a nationally representative sample of eligible respondents.

For sampling purposes, the country was divided into the conventional statistical regions: North, Northeast, Central and South. Bangkok Metropolis was treated as a separate sampling area. From the North, Northeast and Central regions three provinces were randomly selected, and from the South two provinces were taken. The next step involved selection of two districts from each province; one of the two districts had a municipal town or urban area (which, in most cases, was the provincial town). At the district level, the sample areas were stratified into urban and rural communities; two urban and three rural communities were randomly selected from each district. Since Bangkok Metropolis is entirely urban, 24 urban blocks were selected. This procedure yielded 68 rural communities (villages) and 48 urban blocks (substitutions included) from 42 districts of 12 provinces (including Bangkok) across all four regions of the country.

Once the urban blocks and villages had been identified, households were selected to screen for eligible respondents (ERs). Complete listings of households could not be obtained at the local level, so interviewers were instructed to start enumerating the households from the center of the communities and in a pre-set pattern that covered all parts of the community. Each interviewer was to screen every household in his or her areas of coverage. Information on each visited household—even those with no one at home at the time of the visit—was recorded on a screening form containing basic information on numbers of residents, of eligible respondents or ERs (persons aged 15–24), and of absent ERs, etc.[4] When multiple ERs were present in a household, every effort was made to interview all of them. This process continued until the target number of interviewed ERs in each community was reached (16 for rural and 25 for urban communities). Thus, various proportions of the households in the sample communities were actually visited by the survey team. In communities of small size (about 100 households or less) usually all or nearly all households were visited, but in medium-sized or large communities (100 households or more) about half to three-fourths were visited.

Using the field strategy described above, field workers were able to contact about half of the households in all sample communities. Three-fourths of the contacted households were screened for ERs; the rest were unoccupied households or households with no one present at the time of visit. Slightly more than half (54.2 per cent) of the screened households were found to have eligible respondents (youth 15–24 years old), but only 42.5 per cent of the ERs identified were successfully interviewed; nearly all of the rest were absent from the communities at the time of the field work. (The fieldwork was conducted during the dry season when migration out of home communities is most common.) The sample of youth consists of 2,180 males and females. Females slightly out-number males, perhaps reflecting higher rate of movement among male youth.

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[4] In case no one was at home at the time of interviewer's visit or the household was unoccupied, information was sought form the neighbors or head of the village community.

Because our multistage procedures yield varying sampling fractions across areas, that is, different probabilities that households were included in the sample, the sample households are weighted appropriately before analysis to equalize these probabilities. The weights adjust for an urban over-sampling that was built into the design and the unavoidable departures from the sampling design as expressed in information from each community on the total number of households, the proportion of contacted households, the proportion of households actually screened for ERs, the proportion of households with ERs, and the proportion of ERs actually interviewed. Results using these procedures were compared with statistics from the 1990 census to verify that a very similar age-sex composition and regional distribution of the sample population (male and female youth aged 15–24) with that of the census population had resulted.

The questionnaire was field-tested three times before data collection began. There are ten parts designed to collect background information and data on family relations, education, work and income, help from the family and contributions to the family, self image, values and attitudes, family formation, leisure, friends, social networks, health and sexual experience. Questions on sensitive issues such as sexual experience and drug abuse were directly phrased using the commonly understood but polite, central Thai terms.

The section of the questionnaire on sexual experience was self-administered by respondents after face-to-face interviews for other parts of the questionnaire had been completed. Questions were presented on a separate sheet, which was handed to the respondents with an envelope. Respondents were advised to answer all applicable questions privately and return the completed questionnaire to the interviewer in the sealed envelope, without respondent's name or other identification. This strategy resulted in a 100 per cent response rate among those who had already submitted to the face-to-face interviews.

THE MEASURES

a) Outcome variable

Sexual experience, our focus in this analysis, is limited to penetrative sexual intercourse with a person of the opposite sex only. In the self-administered part of the questionnaire, a screening question asked if the respondent ever had sexual intercourse. For those who gave a positive answer, follow-up questions were asked to obtain exact age and marital status at the time of first sex. On the basis of their answers to this question, respondents were of three groups: those who had first sexual intercourse before marriage, those who had first sex within marriage, and those who never had sexual intercourse. Of these, the first group (those who reported having first sex before marriage) was the focus of our analysis. They include male and female youth who reported having sexual intercourse before marriage (if they had been married already) and those who reported having sex who were still unmarried at the time of survey. In the logistic regression analysis presented below the sample youth are divided into those who had premarital sexual experience and those who had not had such experience.

In defining premarital sex we are aware of some ambiguity associated with the concept of "marriage," as it may have different meanings for different respondents. In FAYS, this concept includes any form of union that the respondent might define as "marriage." Sex within cohabitation, when so reported by the respondent, was regarded as premarital sex. In effect, we generally accepted the respondents' report of whether their first sexual intercourse was before or after "marriage," unless information from other sections of the questionnaire indicated that this was not the case. Actually, in running internal checks we found that reports on the timing of the first sex (i.e., before or after marriage) by a small number of cases needed editing for consistency and accuracy.

b) Explanatory variables

Three sets of explanatory measures are included in our analysis. The first set consists of socio-demographic and background measures: *age, school status, place of residence, parental education* and *financial status*. In the logistic regression analysis described below this set of measures is treated as a set of controls, with the age control taking on a special significance. The second set consists of measures related to family structure (*living arrangement* or co-residence with parents) and family process *(relationship with parents, relationship with siblings* and *a measure of family control)*. The third set of measures reflects individual-level characteristics, which include *self-esteem, a personal values scale,* two risk-enhancing lifestyle measures *(visiting nightclubs, pubs and bars,* and *alcohol consumption), sexual experience of peers* and *sexual attitudes.* These individual-level indicators include both the personal and the behavioral, and in our analysis these are distinguished. Distributions of the sample youth on all these measures are provided in Table 1. Additional information on how each measure was derived for our analysis is given below.

Socio-demographic Measures

*Age***:** In the FAYS, female and male youth aged 15–24 were interviewed. Age is measured in completed years since birth. In the bivariate table, age is grouped into standard five-year categories, 15–19 and 20–24, but in our logistic regression analyses single years of age are used.

*School status***:** Female and male youth who were full-time students at the time of the survey were regarded as "in-school;" others are "out-of-school." In the weighted sample nearly one-third (31.6 percent) of the interviewed youth were students, the rest (68.4 percent) were out-of-school youth.

*Place of residence***:** The standard urban definition of the National Statistical Office (NSO) centers around municipal areas. We have included all municipal areas, and of course all of Bangkok, as urban. The FAYS over-sampled youth from urban areas. For our analysis the sample was weighted so that their distribution by age, sex and place of residence, etc., is similar to that in the census population. About twenty-one percent of the weighted sample are youth from urban areas.

*Financial status***:** Financial status is considered as roughly associated with youth behavior and the kind of activities that youth engage in. Although we have found no previous studies focused on the effect of financial status on sexual behavior, we have explored how this measure is related to youth's engagement in risk behaviors, particularly for those youth with ample financial resources. We hypothesize that youth with difficult financial circumstances are more likely to engage in risk behavior including premarital sex. In the survey, the financial status of youth during the one-year period before interviews was assessed by a direct question. Youth in the sample are divided into four groups: Youth who had no income because they were too young to work or unemployed (accounting for 12.3 percent of total sample), youth who judged that they had just enough monthly (44.4 percent), youth who said they had at least a small surplus to save every month (35.1 percent), and youth who reported being in difficulty or having to borrow to meet their monthly needs (8.2 percent).

Family Background Measures

*Parental education***:** For our analysis, only the educational level of mother or father, whichever is higher, is taken to represent parental education. If one of the parents died before the respondent was 10 years old, the education of the surviving parent was used; otherwise the highest education of either father or mother (whichever is higher) was taken. In case both parents died before the respondent was

10 years old, the case is not included in the analysis. By this treatment, 1,791 cases (out of 2,180) were eligible for the analysis; the rest were excluded. Our use of age ten reflects the assumption that the effect of parental education on children's behavior will be reduced considerably if either or both parents died while the respondent was still in childhood. The distribution of sample youth on this measure indicates that about 80 percent had parents with only some or completed elementary education; 10 percent with some or completed middle-high school level; 5 percent with college education or higher; the rest (about four percent) have parents with no education.

Studies in some Western settings indicate a mixed effect of parental education; some found it to have a protective effect (Forste and Heaton 1988), while others found no effect of this measure on youth sexual behavior (Miller et al. 1999; Small and Luster 1994). In our analysis we hypothesize that parental education will have a protective effect against premarital sex of youth. We expect youth whose parents have higher levels of education to be less likely to engage in premarital sex.

Co-residence with parents: In most normal cases, being close to parents should be an advantage to children at least in terms of the support and supervision which are essential in the process of transition to adulthood. Although parenting style can make a difference, simple presence or absence is also very important. We hypothesize that youth living in families with both parents present will be less likely to risk premarital sex. In our study, this measure is taken from a direct question on current residence with parents (biological, adoptive, or stepparents). Over 60 percent of youth in the sample lived with father and mother, about 14 percent with only one parent (mother or father only), while 25 percent are not living with any of the parents due to parental death, divorce or separation, or youth's migration out of the parental household.

Relationship with parents: The respondents were asked to assess their relationships with their parents (biological or adoptive). Responses are grouped into three categories: "good with both mother and father," accounting for 79.3 percent of the sample, "good with either mother or father" (15.1 percent), and "good with neither of them" (5.6 percent). We hypothesize that youth who have good relationships with both parents are less likely to risk premarital sexual intercourse. This hypothesis reflects an assumption that the protective function of parents rests on, among other things, the positive nature of relationships between parents and children.

Relationship with siblings: To most adolescents, siblings are other family members who share many common characteristics and elements of social position. Some previous studies suggest an influence of older siblings on the initiation of sexual intercourse of younger siblings (for example, Widmer 1997; Haurin and Mott 1990). In this study, because direct information is not available, relationship with other siblings is taken as a proxy for the sibling's influence. In the survey, respondents were asked to assess their relationships with other siblings (full or half siblings). Those with no siblings were excluded. Nearly all respondents (93 percent) reported that they had a "good relationship with all siblings" while negligible proportions said they had a "good relationship with some siblings only" (6 percent) or a "good relationship with none" (1 percent). We hypothesize that youth with good relationships with all siblings are least likely to engage in premarital sex.

Family Control Scale: This measure expresses 'parenting style" which is an important element of family process. At the core of this measure is the extent to which children's behavior and activities are monitored and supervised. Some previous studies in Western settings that focus on parental monitoring have pointed out significant effects of this measure on adolescent sexuality (for example, Rodger 1999). Parental monitoring is measured in terms of parental awareness of what the children do, where they are at different times of the day, and with whom children spend their time. The level of such awareness is taken to indicate "parental behavioral control." In our analysis, this measure is created by summing the scores derived from the respondent's answers to eight questions that ask about

the freedom from family control on specified aspects of the respondent's life. The question reads, *"At present how much freedom (i.e., not being under strict control from other family members) do you think you have in the following aspects."* The questions address freedom from family control over *the kind of people to make friends with, spending money, going out for fun, choosing jobs, having boyfriends/girlfriends, dressing/ clothing, choosing whom to marry, and choosing what to study*. A three-point scale response was provided for each item, ranging from 1 (*no freedom at all*) to 3 (*a lot of freedom*). For the purpose here, lack of freedom in any of these items is considered evidence of greater family control—more freedom, less family control. Thus, the answers were reverse-coded so that higher scores indicate higher family control and vice versa. Since not all aspects of freedom included in the questions are applicable to all respondents, scores for each respondent were calculated on the basis of the number of questions that were answered. For compatibility across the cases the final score of each respondent is taken as a percentage of the full score for all questions that were answered by that particular case. Observed total scores for the entire sample range from .39 to 1.0, with the mean of .59 (Sd = .081). Scores lower than the mean value are assigned "low family control"; scores equal to or higher than the mean value are considered "high family control." Based on this treatment, 56.8 percent of the sample youth were under low family control, while 43.2 percent were under high family control. We hypothesize that lower risk of premarital sex is associated with high level of family control.

Individual Measures

Self-Esteem Scale: This is a composite variable created by summing the scores derived from the responses to a set of statements in which respondents were asked to indicate how well each statement described their feeling about themselves. The statements are*: "You feel that you have a number of good qualifications," "You feel that you are as important to your family as other members," "You feel that you can accomplish many things just as other people," "You are hardly proud of yourself," (reverse-coded) "You always know your own strengths and weaknesses," "You feel that many things you do are not so meaningful for yourself" (reverse-coded), and "You feel that you mean much to your friends."* A four-point scale answer was prepared on a card for the respondents to read and choose their answers from. Each respondent's score is calculated as the percentage of the full score. A high percentage reflects high self-esteem, a low percentage, and low self-esteem. Observed scores for our sample range from .43 to 1.0 (mean = .74, sd. = .086). Cases with scores lower than the mean are grouped under "low self-esteem," those with scores equal to or higher than the mean reflect "high self-esteem." Approximately half of the youth in the sample had low self-esteem. We test the hypothesis that higher self-esteem is associated with a lower risk of premarital sex. This hypothesis is based on our assumption that youth who have a high self-esteem score will be less likely to engage in risk behaviors.

Personal Values Scale: Like self-esteem, the personal values scale is a composite measure resulting from adding the scores from responses to several statements regarding values. The concept of "value" here is understood simply as matters that one considers important or valuable. Although all the values included in the statements are generally positive, we assume that respondents will differ in their patterns of response reflecting what they regard as important or not important. Respondents were asked to indicate how important each of the values is to them. The values include*: freedom to do things the way one wants, honesty, fun and enjoyment, religion and morality, a goal-oriented life, friendship, collective interest over individual's interest, equality of men and women, and self-restraint.* Respondents chose their answers from a four-point scale ranging from 1 *(not important)* to 4 *(most important).* Based on the scores, the sample was divided into two groups of low and high personal values, using the mean score as a dividing line. Most of the youth in the sample are of high personal

values (55.7 percent) while 44.3 percent fall in the low personal values category. We hypothesize that high personal values is associated with lower risk of premarital sex.

Drinking and visiting nightclubs, pubs, bars: Negative, risky behaviors often go together as elements of a life style. Previous studies have found an association between different forms of negative activities and sexual risk behavior (Perkins, Luster and Villarruel 1998). In our study we take drinking of alcohol and visiting nightclubs, pubs, bars, etc., to represent such negative behavior. Both drinking and visiting nightclubs, etc., are measured in terms of frequency in the one month before the survey. Based on this criterion, slightly over one-third of youth in the sample reported they frequented nightclubs, etc., at least once a week, while the rest did not. For drinking, 41.4 percent of youth in the sample identified themselves as non-drinkers, 21.5 percent as drinkers who did not drink in the past one month, and the rest (37 percent) say they drank from at least once a week to every day.

Peer sexual experience: Peers often provide important models of attitudes and behavior for adolescents and youth. Youth whose peers have had sexual experience tend to engage in the same behaviors (Small and Kerns 1993; Small and Luster 1994). Based on the recognized significance of peers as models for youth behavior, we hypothesize that youth who are aware that most of their friends have had sexual experience are more likely to engage in premarital sex than those who say their friends have not had such experience. Information on peer's sexual experience is derived from a direct question in the self-administered part of the questionnaire, which reads, *"Do you think most of your female and male friends have had sexual intercourse?"* Twenty-seven per cent of the sample youth reported that most of their friends had had sexual intercourse, while seventy-three per cent thought that most of their friends had not had sex. It should be noted that the reports used for this measure represent the perception of the respondents, and may not well represent their peer's actual experience. Perceptions may influence personal behavior, but of course personal behavior may also influence perceptions. We must interpret this information with caution.

Liberal Sexual Attitudes: Attitudes are a foundation for behavior, and previous studies have found significant effects of permissive sexual attitudes on adolescent sexuality (for example, Whitback et al. 1999). We test the hypothesis that more liberal sexual attitudes are associated with higher risks of premarital sex. For our purpose, a liberal sexual attitudes scale was obtained by summing the scores derived from responses to two statements in which respondents were asked to indicate their agreement. The statements are, *"It is out-of-date to keep female's virginity till marriage."* and *"Nothing is wrong for a young man and a young woman to cohabit without going into marriage."* A four-point scale response was provided for the respondent to choose from, ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). The greater total score represents the more liberal sexual attitude, and vice versa, About 50 percent of youth in the sample were of "less liberal" sexual attitude.

RESULTS

a) Patterns of Premarital Sex by the Background Measures

Table 2 provides proportions of youth reporting having had sexual intercourse, by gender and selected individual and family characteristics. Of particular interest, perhaps, is the great difference in reported premarital sexual experience between males and females. While nearly one in two males reported having premarital sexual experience, less than one in ten females reported having premarital sexual experience. Certainly, this indicates that single males are far more sexually active than single females. This is the pattern in most societies; however, the great gender difference may be due in part to reticence among females with regard to sexual matters. Because females tend to be more reluctant to reveal their actual behavior, their reports may be much reduced in both absolute and relative terms.

For both males and females, the older youth are more sexually active than the younger youth, the out-of-school more active than the in-school, and the urban more active than the rural (though for males the differential is negligible).

There is a greater tendency for youth whose parents had no formal education to be involved in premarital sex compared to those whose parents had at least some formal education. Among youth whose parents had at least some formal education, the patterns differ slightly for males and females. For males, the proportion who had premarital sexual experience increases fairly consistently with increase in educational level of parents, but for females the proportion with premarital sex shifts irregularly with parental education.

A uniform association between financial status and premarital sex of youth is not observed in our bivariate results, though there clearly is greater risk among youth who were in a difficult financial position (i.e., those who did not have enough, and had to borrow to meet monthly needs), especially among males.

The results seem to suggest protective effects of living in the family with both parents. Males and females living in intact families (with both parents) are less likely to engage in premarital sex than those in one-parent families and no-parent families. Similarly, a good relationship with both parents and with siblings seems to protect youth from premarital sex at least to some extent, although associations between the outcomes and the explanatory variables are not linear. A high level of family control seems to be associated with lower risk of premarital sex, particularly for males, suggesting that control is still an effective measure if applied appropriately. Self-esteem does seem to make a difference with regards to premarital sexual behavior of the sample youth. Both males and females with a low level of self-esteem show higher proportions reporting premarital sex.

There is a small and inconsistent difference between youth with low and those with high personal values scores. The proportions exposed to premarital sexual intercourse in the two groups (low-values and high-values youth) are more or less the same for both males and females (although the level of exposure for males is much higher than that of females). Our bivariate result seems to suggest no association between the personal values scale and the premarital sexual experience of adolescents. Visiting nightclubs, pubs, and bars, and alcohol consumption, show similar effects on premarital sex. The risk of premarital sex increases with the frequency of both "negative" behaviors. The greater the frequency of drinking and visiting nightclubs, etc., the greater the risk of premarital sex. Note, however, that very small number of youth in the sample engaged in visiting nightclubs, pubs, or bars on a daily basis. With respect to alcohol consumption, non-drinkers are at the lowest risk.

Youth who reported sexual intercourse among most of their peers have much greater exposure to premarital sex than those who reported no sexual activity among most of their friends, thus confirming what several previous studies have discovered (Small and Kerns 1993; Whitbeck et al. 1999). Similarly, male and female youth with more liberal sexual attitudes are more likely to engage in premarital sex.

Overall, these bivariate results reveal substantial differences in premarital sex among youth of different ages and school statuses, but a mixed pattern of premarital sex among males and females from urban and rural areas. The findings, however, suggest but a weak association between the outcome variable and most family measures included in our analysis. Individual measures, on the other hand, show somewhat stronger associations with youth sexual risk behavior, hence supporting these hypotheses. An exception, however, is for "personal values" and "financial position" which do not seem to have a uniform effect. Based on the bivariate results, a conclusion may be reached regarding effects of the family and individual measures on youth premarital sex. The risk of premarital

sex is associated with living away from both parents, poor relationships with parents and siblings, a low level of family control, low self-esteem, frequent drinking and visiting entertainment places (nightclubs, pubs, bars), having friends who had sexual experience, and more liberal sexual attitudes.

b) Family and Individual Measures: Multivariate Analysis

Bivariate relationships can be fragile and even deceiving evidence in support of causal interpretations. One factor is that an association with age at interview certainly exists for many of these variables. For example, older youth are more likely to have higher levels of education and are less likely to be living with their parents. A more general problem is that there are likely to be shared influences among the variables vis-à-vis pre-marital sexual behavior, and these may distort the bivariate patterns. Both these problems can be addressed with multivariate procedures.

We turn now to a logistic regression analysis to assess effects of the family and individual background measures on the risk of exposure to premarital sex, net of one another and net of the effect of current age. Since our bivariate results show very different levels of exposure to premarital sex among males and females, it is appropriate to separate the models for males from those for females. In the logistic models in Table 3, we present a set of Base models which include only current age, or other explanatory factors taken separately. Then we present models involving each of three sets of explanatory factors: *social background factors*, *individual factors*, and *family factors*, and then a final model involving all these factors simultaneously. The table presents relative odds ratios and associated statistical significance levels. We will discuss these results in the groups in which they are presented. For each explanatory factor we look at how coefficients change between the Base model and models with increasing numbers of controls. We also note important differences between the results for males and females.

Table 3 addresses the question how each individual variable relates to the dependent variable, separately versus together with other influences. Before turning to the explanatory factors of substantive interest, we will consider the coefficients in Table 3 for current age. One important observation is that the odds ratios suggest a very strong positive effect of age on pre-marital sexual experience. This is of course expected, since the dependent variable is a lifetime cumulative measure. It is notable, though, that this effect of age is stronger for males than females, reflecting the much higher levels of pre-marital sexual experience ultimately reached by males compared with females. It is also notable that the coefficients for each of the sexes diminish as controls are introduced. In the final model with all explanatory factors included the effect of age has been reduced by half or more. Nevertheless, there is an age-effect even net of all the control variables. Examination of the full pattern of coefficients suggests how some variables, through their own associations with current age, either inhibit or reinforce the relationship between current age and level of lifetime pre-marital sexual exposure.

For other explanatory variables, we generally observe that effects that are often strong and significant when considered alone, but become weaker and often become insignificant when more and more other variables are introduced. Among the social background variables, this is illustrated well by the coefficients for enrollment in school. Among males this variable has a pronounced and statistically significant relationship with premarital sex when considered by itself.[5] But when age is introduced the effect diminishes and is no longer statistically significant. This reflects the fact that pre-marital sexual experience is more likely at older ages, while enrollment in school is less likely. When other social

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[5] The coefficient of 0.380 indicates that the likelihood of premarital sex is only slightly more than one third as great among those in school than among those out of school.

background variables are introduced the effect is weaker still, and when all other variables are introduced the effect is negligible and statistically insignificant.

The coefficients for urban residence are also instructive because their pattern is quite different. Overall among males the coefficient is small (the ratio is close to one) and insignificant (we saw in Table 2 that the descriptive difference between urban and rural is negligible), but as more and more other factors are introduced the effect of urban residence among males emerges to be powerful (urban residents have lower levels of pre-martial sex than do rural residents)[6] and statistically significant. That is to say, the observed or uncontrolled urban-rural differential in pre-marital sexual exposure is small, but this is because a variety of urban-rural differentials is concealing an underlying relationship.

By comparing the male and female results some important differences are highlighted. For example, enrollment in school continues to be a statistically significant inhibitor of pre-marital sexual experience among females even when all other variables have been controlled for (for males school enrollment becomes statistically insignificant). In the case of urban residence the important gender difference is that among males a statistically significant effect of urban residence (lower pre-marital sex experience among urban youth) emerges with the controls, whereas among females urban residence is associated with nearly double the likelihood of pre-marital sexual experience though this becomes statistically insignificant with the controls.

The influences of parents' education seem to be consistent and clear for males, but are not statistically significant. In the absence of controls, more parental education increases the prevalences of pre-marital sexual experience (with the highest level by far among males with fathers having no schooling), but with the controls more education of parents seems to increase the prevalences of pre-marital sexual experience among males. The influences of parents' education are obscured by the concentration of parents in the elementary schooling category. A larger sample size might have yielded statistically significant results. The results for females are also insignificant and inconsistent in pattern as well. The pattern among males indicates that parents' educational level is associated with one or more other factors that reduce the prevalence of pre-marital sex, so that controlling on those yields a positive effect of parents' schooling on pre-marital sex. Here an important effect was suppressed in the bivariate results.

Some explanatory variables seem to have roughly consistent effects which are sometimes significant and sometimes not. For example, respondents with the financial status "not enough/borrows" are associated with lower levels of pre-marital sex than are those who "can save some" or who have no income (are not compelled to work). This pattern is stronger for males than females (suggesting a financial prerequisite for pre-marital sexual opportunity?) and becomes insignificant when there are statistical controls, except that in the full model for males evidence of a financial problem is associated, significantly, with pre-marital sexual experience.

The group of individual characteristics includes risk-behaviors reflecting life styles that might be associated with pre-marital sexual initiation, certain psychological dimensions, and a measure of peer influence.

The two life style risk-behaviors measured, night clubbing and drinking, are both strongly linked with pre-union sexual activity among males. Relative to the group of respondents who have gone clubbing "infrequently" or "once a week/every day" in the last month, those who have never

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[6] A well-known phenomenon in Thailand. See Israbhakdi (1995).

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gone clubbing have dramatically lower levels of premarital sexual experience. A similar pattern exists among males for drinking, but among females only for clubbing.

One of the two psychological dimensions, self esteem, has consistent and strong effects that are statistically significant, at least until many other variables are introduced. High self esteem seems to reduce the level of pre-marital sexual experience by a third to a half. This powerful effect largely is not diminished by the age control, but is diminished and rendered statistically insignificant by the introduction of other variables. The other psychological dimension, the personal values scale, reduces the prevalence of pre-marital sex for females (though coefficients are only occasionally statistically significant) and may in contrast raise the prevalence of pre-marital sex among males (but none of those coefficients is statistically significant). The liberal sexual attitudes scale is associated with higher levels of premarital sex, though these effects are stronger for females than males, are not always significant, and diminish in magnitude as controls are brought into play. Finally, the measure of peer sexual experience suggests a powerful peer influence such that those whose peers are thought to have had sexual experience have themselves had pre-marital sex. However, we must recall our earlier caution here; it is not clear whether the respondent's behavior is mimicking the actual or imagined behavior of peers, whether respondents seek out peers with similar sexual histories, or if the peer behavior measure is seriously flawed by respondent falsification.

The group of family explanatory variables includes one measure of family structure and co-residence, two reflecting relationships within families, and one reflecting the nature of authority and hierarchy within families. Though the coefficients for co-residence with parents are sometimes significant and sometimes not, the general pattern strongly indicates a powerful beneficial effect of co-residence with both parents, or conversely the disruptive influence on youth of living with only one parent or with neither of them. We must recall that growing up with an intact pair of parents is by far the modal experience among Thai youth, so that being raised with only one parent or with neither identifies a narrow sub-group of the overall youth population. Being raised with only one parent more than doubles the likelihood of pre-marital sex among females, and raises it by up to fifty percent among males. Moreover, being raised with neither parent more than doubles the prevalence of pre-marital sex among males and more than quadruples it among females. This last effect retains some statistical significance even when many other variables have been introduced.

The effects coefficients for the two relationships measures (with parents and with siblings) all suggest that the likelihood of pre-marital sex is much enhanced by poor family relationships, but only some of these coefficients are significant among males and none are significant among females. One speculation would be that girls are expected to tolerate such poor family relationships without behavioral display, whereas boys are not. On balance, the analyses of family relationship measures provides some mixed support for the hypothesis that a good relationship with both parents is associated with lower risks of engaging in pre-marital sex. The last family measure is a control scale which has contrasting effects for males and females. Males have much lower likelihoods of pre-marital sex when family control is high, but females have much higher likelihoods of pre-marital sex under that circumstance. The family control scale effect is not statistically significant when all the other variables have been introduced.

DISCUSSION

Our results do not seem to allow completely firm and consistent conclusions about effects of the family and individual measures on premarital sexual behavior of adolescents and youth. Nevertheless, our results do indicate that family and individual factors operate and are important enough to warrant policy attention. Not all our measured factors show statistically significant effects in the anticipated

directions, yet most of the non-conforming results are not directly inconsistent with the hypotheses. Even though not statistical significant, their effects are in the expected directions. This, we believe, is grounds for suggesting that policy aimed at addressing youth's premarital sexual behavior, and programs directed to young people, should take into consideration the role of family and individual characteristics as important precursors along with influences at other levels such as the local community.

Within the Thai setting, there has been increasing public discussion and concern about untimely sex among adolescents and youth. Much of the concern points to the weakening of the family institution as an important precursor, and the recommendation is made in various forms that the family be strengthened in order to reduce the problem. Our study offers nothing that conflicts with this recommendation. In fact, the empirical evidence from our analysis is generally supportive. In principle, at least, programs can address two related issues to strengthen the family. On the one hand, structural aspects of the family should be addressed with the aim of promoting co-residence of parents and adolescent children and more generally to keeping the family intact. Effort in this direction is, however, likely to meet with some serious difficulties given the changes taking place in all sectors of Thai society today. One highlight of such difficulties is out-migration of youth from their parental households (for work or for studies) and the slow but steady increase in family disruption resulting in a rising number of single-parent families. It seems, then, that not much can really be done relating to the structural aspects of the family, at least in the short term.

On the other hand, programs may address the family processes that directly or indirectly affect the odds of engaging in sexual activity among adolescents and youth. Our results suggest that some family measures such as good relationships with parents and siblings can be improved by facilitating good communication between parents and adolescents. To enhance good parent-adolescent relationships appropriate youth activities within and outside the family context may be promoted. Parents' participation in these youth programs may be a good strategy for bringing parents and their adolescent children into direct contact outside the family. The outcome may be good relationships and, with that, good parent-adolescent communications which are favorable for reducing the attraction of risk-taking behaviors. Assessment of intervention programs for adolescent and youth that involve participation of parents in the United States suggests a promising prospect for reducing sexual risk behaviors (Meschke et al., 2000).

Family control is also found to be of protecting value, although its effect is not strong in our data. In our study, this variable is assessed in terms of the degree of freedom permitted, that is, the degree to which freedom in different aspects of the youth's life is limited by other family members. The information we have used for assessing these measures may not be the best, yet the results of our logistic regressions are useful in understanding youth sexual risk behavior. Clearly, increased family control helps lower the risk of premarital sex, suggesting that some control, at least, is better than no control. Parents may thus be advised to seek a measure of control over their adolescents in culturally and socially appropriate ways. In Western settings, as we already pointed out in our review of literature above, parental control is understood as "parental monitoring" of children's behavior. Generally, the two concepts are more or less the same, and both have similar effects on youth sexual behavior.

The individual background measures included in our study seem to show somewhat clearer effects on premarital sex as anticipated in the hypotheses. Based on our results, meaningful interventions may be designed to enhance the characteristics that are not favorable to untimely and risky sexual activities among adolescents and youth. Some of these interventions, on the basis of our results, may involve effective educational programs including those outside the formal educational system. Others may have to do with appropriate social or legal measures. For example, raising self-

esteem works against premarital sex of youth, according to our results. Self esteem may be raised through training programs or youth activities. On the social and legal front, programs may aim at limiting adolescent and youth access to nightclubs, pubs and bars and to the consumption of alcohol, all behaviors which often carry through to other risk behaviors including sex. For the Thai setting, certainly, existing legal and social measures in this regard should be more effectively enforced.

The fact that our results do not show strong support for some of our initial hypotheses may be surprising, but certainly is not unexpected. Family and individual measures included in this study are not the only potential precursors of youth's premarital sex. There are other factors that impinge upon this behavior as well which we could not include here due to limitations of our data. Future research may combine ecological variables such as characteristics of the community and neighborhood with family and individual measures for a deeper understanding of youth premarital sex. Investigation may also focuses on identifying risk factors for premarital sex, which inevitably calls for inclusion of measures of diverse but relevant factors (see, for example, studies by Small and Luster 1994; Perkins et al. 1998; Upchurch et al. 1999).

As is common in studies of this kind, we have encountered a variety of measurement problems which prevent us from carrying the analysis any further. Future research should pay attention to selecting the variables for analysis. Some of the additional measures that may be worth including in analysis are, for example, parent-adolescent communications, parental attitudes toward adolescent sexuality, grade level (for the in-school group), parenting processes and styles, and community/neighborhood characteristics.

REFERENCES

Casper, L. B. 1986. Does Family Interaction Prevent Adolescent Pregnancy? *Family Planning Perspectives* 22: 109–114.

Chilman, C. S. 1979. Teenage Pregnancy: A research Review. *Social Work* 24: 492–498.

East, P. L. 1996. The Younger Sisters of Childbearing Adolescents: Their Attitudes, Expectations and Behaviors. *Child Development* 67: 267–282.

Fisher, T. D. 1987. Family Communication and the Sexual Behavior and Attitudes of College Students. *Journal of Youth and Adolescence* 16: 481–495.

Flick, L. H. 1986. Paths to Adolescent Parenthood: Implication for Prevention. *Public Health Reports* 101: 132–147.

Forste, R. T. and Heaton, T. B. 1988. Initiation of Sexual Activity among Female Adolescents. *Youth and Society* 19, 250–262.

Haurin, R. Jean and Frank L. Mott. 1990. Adolescent Sexual Activity in the Family Context: The Impact of Older Siblings. *Demography* 27(4): 537–557.

Hayward, M. D., W. R. Grady, and J. O. Billy. 1992. The Influence of Socioeconomic Status on Adolescent Pregnancy. *Social Science Quarterly* 73: 750–770.

Hogan, D. P. and E. M. Kitagawa. 1985. The Impact of Social Status, Family Structure, and Neighborhood on Fertility of Black Adolescents. *American Journal of Sociology* 90, 825–855.

Inazu, J. K. and G. L. Fox. 1980. Maternal Influence on the sexual Behavior of Teen-Age Daughters: Direct and Indirect Sources. *Journal of Family Issues* I: 81–102.

Israbhakdi, Pimolpan. 1995. *Determinants of Sexual Behavior that Influence the Risk of Pregnancy and Diseases among Rural Thai Young Adults*. Unpublished report.

Jaccard, J., P.J. Dittus, and V. V. Gordon. 1996. Maternal Correlates of Adolescent Sexual and Contraceptive Behavior. *Family Planning Perspectives* 28 (4): 159–65, 185.

Jessor, Richard, Mark S. Turbin and Frances M. Costa. 1998. Protective Factors in Adolescent Health Behavior. *Journal of Personality and Social Psychology* 75(3): 788–800.

Jessor, Richard, Mark S. Turbin and Frances M. Costa. 1999. Risk and Protection in Successful Outcomes Among Disadvantaged Adolescents. *Applied Development Science* 2(4):194–208

Kahn, J. R., R. R. Rindfuss, and D. K. Guilkey. 1990. Adolescent Contraceptive Method Choice. *Demography* 27: 323–335.

Kirby, Douglas. 1999. *Antecedents of Adolescent Sexual Risk-Taking, Pregnancy and Childbearing: Implications for Research and Programs*. Unpublished draft report, September.

Klausner, William J. 1987. *Reflections on Thai Culture: Collected Writings of William J. Klausner*. Bangkok: Siam Society.

Ku, L., F.L. Sonenstein, and J.H. Pleck. 1993. Factors Influencing First Intercourse for Teenage Men. *Public Health Reports* 108: 680–694.

Leland, N. L. and R.P. Barth. 1993. Characteristics of Adolescents who have attempted to Avoid HIV and Who Have Communicated With Parents about Sex. *Journal of Adolescent Research* 8: 58–76.

Luster, Tom and Stephen A. Small. 1994. Factors Associated with Risk-Taking Behaviors Among Adolescents. *Journal of Marriage and the Family* 56: 622–632.

McNamara, Regina. 1994. *A Report of Sexual Attitudes and Experiences among Low-Income Females in Bangkok and Udon*. Paper presented at the Seminar of the Research Project on Behavioral Research for AIDS Prevention in Thailand. Bangkok: Institute for Population and Social Research, Mahidol University, 2 August 1994. Unpublished.

Meschke, Laurie L., Suzanne Bartholomae, and Shannon R. Zentall. 2000. Adolescent sexuality and parent-adolescent process: Promoting healthy teen choices. *Family Relation* 49(2): 413–154.

Miller, B. C., M. C. Norton, X. Fan, and C. R. Cristopherson. 1986. Parental Discipline and Control Attempts in Relation to Adolescent Sexual Attitude and Behavior. *Journal of Marriage and the Family* 48: 503–512.

Miller, Kim S., Rex Forehand, and Beth Kotchick. 1999. Adolescent Sexual Behavior in Two Ethnic Minority Samples: The Role of Family Variables. *Journal of Marriage and the Family* 61 (1): 85–98.

Moore, K. A., J. L. Petersen, and F. F. Furstenberg. 1986. Parental Attitude and Occurrence of Early Sexual Activity. *Journal of Marriage and the Family* 48: 777–782.

Nopkesorn, Taweesak, Suebpong Sungkorom, and Rungkan Sornlum. 1991. *HIV Prevalence and Sexual Behavior among Thai Men Age 21 in Northern Thailand*. Bangkok: Thai Red Cross Society.

Nopkesom, Taweesak, Mike D. Sweat, Satit Kaensing, and Tiang Teppa. 1993. *Sexual Behavior for HIV Infection in Young Men in Payao*. Program on AIDS, Kai Somdej Pranaresuan Hospital, Third Army Area and Thai Red Cross Society.

Perkins, Daniel F., Tom Luster, Francisco A. Villarruel, and Stephen Small. 1998. An Ecological, Risk-Factor Examination of Adolescents' Sexuality in Three Ethnic Groups. *Journal of Marriage and the Family* 60: 660–673.

Pick, S., and P. A. Palo. 1995. Impact of the Family on the Sex Lives of Adolescents. *Adolescence* 30: 667–675.

Podhisita, Chai, Uriawan Kanungsukksem, and Anthony Pramualratana. 1994. Selected Characteristics and Sexual Behavior of the BRAIDS Samples (in Thai). Paper presented at the Seminar of the Research Project on Behavioral Research for AIDS Prevention in Thailand. Bangkok: Institute for Population and Social Research, Mahidol University, 2 August 1994. Unpublished.

Podhisita, Chai and Umaporn Pattaravanich. 1995. *Youth in Contemporary Thailand: Results from the Family*. Bangkok: Mahidol University.

Prasartkul, Pramote, A. Chamratrithirong, Anthony Bennett, Ladda Jitwatanapataya, and Pimolpan Israbhakdi. 1987. *Rural Adolescent Sexuality and the Determinants of Provincial Urban Premarital Adolescent Sex*. Bangkok: Institute for Population and Social Research, Mahidol University.

Rodger, Kathleen Boyce. 1999. Parenting Process Related to Sexual Risk-Taking Behaviors of Adolescent Males and Females. *Journal of Marriage and the Family* 61: 99–109.

Sittitrai, Werasit, Praphan Phanuphak, Jean Barry, and Tim Brown. 1992. *Thai Sexual Behavior and Risk of HIV Infection: A Report of the 1990 Survey of Partner Relations and Risk of HIV Infection in Thailand*. Bangkok: Program on AIDS, Thai Red Cross Society and Institute of Population Studies, Chulalongkorn University.

Small, Stephen A. and Tom Luster. 1994. Adolescent Sexual Activity: An Ecological, Risk Factor Approach. *Journal of Marriage and the Family* 56: 181–192.

Small, Stephen A., and Donell Kerns. 1993. Unwanted Sexual Activity Among Peers During Early and Middle Adolescence: Incidence and Risk Factors. *Journal of Marriage and the Family* 55: 941–952.

Upchurch, Dawn M., L. Levy-Storms, C. A. Sucoff, and C. S. Aneshensel. 1999. Neighborhood and Family Contexts of Adolescent Sexuality. *Journal of Marriage and the Family* 61: 920–933.

VanLandingham, M. J., S. Suprasert, W. Sittitrai, C. Vaddhanaphuti, and N. Grandjean. 1993. Sexual Activity among Never-Married Men in Northern Thailand. *Demography* 30(3): 279–313.

Weniger, Bruce G., Khanchit Limpikarnchanarat, Kamnuan Ungchusak, Sombat Thanprasertsuk, Kachit Choopanya, Supak Vanichseni, Thongchai Uneklarbh, Prasert Thongcharoen, and Chantapong Wasi. 1991. The epidemiology of HIV infection and AIDS in Thailand. *AIDS* 5: S71–S85.

Whitbeck, Les B., Kevin A. Yoder, Dan R. Hoyt, and Rand D. Conger. 1999. Early Adolescent Sexual Activity: A Developmental Study. *Journal of Marriage and the Family* 61: 934–946.

Widmer, E. D. 1997. Influence of Older Siblings on Initiation of Sexual Intercourse. *Journal of Marriage and the Family* 59: 928–938.

Xenos, Peter and Midea Kabamalan. 1998. The Changing Demographic and Social Profile of Youth in Asia. *Asia-Pacific Population Research Reports*, No. 12. Honolulu: East-West Center.

Young, Ellie Wright, L. C. Jensen, J. A. Olsen, and B.P. Cundick. 1991. The Effects of Family Structure on the Sexual Behavior of Adolescents. *Adolescence* 26 (104): 977–986.

Table 1. Profile of Youth in the Sample

Characteristics	Male % Distribution	Female % N	Total % N
Premarital Sex			
Marital sex	6.0	31.2	18.6
Pre-marital sex	46.3	9.0	27.6
Never had sex	47.7	59.8	53.8
Parental Education			
No education	3.9	4.2	4.3
Elementary	80.7	80.5	80.5
Middle-high school	8.9	11.4	10.1
College or higher	6.4	3.9	5.1
Age			
15-19	50.7	50.6	50.6
20-24	49.3	49.4	49.4
School Status			
In-school	33.3	30.3	31.6
Out-of-school	66.7	69.7	68.4
Place of Residence			
Urban	22.9	19.7	21.3
Rural	77.1	80.3	78.7
Financial Status			
Just enough	46.4	42.4	44.4
No personal income (not working)	11.0	14.0	12.3
Can save some	34.4	35.5	35.1
Not enough/borrows	8.3	8.2	8.2
Living Arrangement			
With both parents	65.0	58.2	61.3
With mother or father only	14.5	12.7	13.6
With neither	20.5	29.0	25.1
Relationship with Parents			
Good with both	77.7	81.4	79.3
Good with mother or father only	15.7	14.3	15.1
Good with neither	6.7	4.3	5.6
Relationship with Siblings			
Good with all	94.9	90.7	92.8
Good with some	4.6	7.6	6.1
Good with none	0.5	1.7	1.1

Table 1. Profile of Youth in the Sample (continued)

Characteristics	Male % Distribution	Female % N	Total % N
Family Control Scale			
Low	63.5	50.2	56.5
High	36.5	49.8	43.5
Self-esteem Scale			
Low	47.6	51.2	49.4
High	52.4	48.8	50.6
Personal Values Scale			
Low	47.1	40.8	44.3
High	52.9	59.2	55.7
Visiting Nightclubs/Pubs/Bars			
Not at all	55.6	68.7	62.1
At least once a week	43.9	30.7	37.3
Everyday	0.6	0.6	0.6
Drinking			
Not at all	21.0	21.8	21.5
At least once a week	49.3	19.8	34.5
Everyday	4.6	0.6	2.6
Not drinkers	25.0	57.8	41.4
Sexual Experience of Peers			
Yes, for most	36.7	10.0	27.1
No, for most	63.3	90.0	72.9
Liberal Sexual Attitudes Scale			
Less liberal	36.4	64.0	50.3
More liberal	63.6	36.0	49.7
All Cases	100.0	100.0	100.0

Note: Total weighted number of male in the sample = 1087 cases; female = 1092 cases. The number of eligible case for each variable varies due to different number of missing cases.

**Table 2. Proportion of the Sample Youth with Premarital Sex Experience by Family
and Individual Background Measures and Sex of Respondents**

Characteristics	Male		Female	
	Percent	N	Percent	N
TOTAL	46.3	1073	9.0	1085
SOCIO-DEMOGRAPHIC				
Age				
15-19	28.9	544	4.9	548
20-24	64.2	530	13.2	536
School Status				
In-school	33.5	358	1.5	329
Out-of-school	52.7	716	12.4	757
Place of Residence				
Urban	47.6	246	15.4	214
Rural	45.9	828	7.6	872
Parental Education				
No education	60.0	35	16.2	37
Elementary	42.9	716	7.9	717
Middle-high school	45.6	79	10.8	102
College or higher	47.4	57	2.9	35
Financial Status				
Just enough	50.6	498	11.1	460
No personal income (not working)	37.3	118	13.1	152
Can save some	37.7	369	6.0	385
Not enough/borrows	69.7	89	13.5	89
Living Arrangement				
With both parents	40.5	697	6.0	632
With mother or father only	52.6	156	11.6	138
With neither	60.5	220	14.0	315
Relationship with Parents				
Good with both	40.2	734	7.7	777
Good with mother or father only	63.5	148	13.9	137
Good with neither	55.6	63	12.2	41
Relationship with Siblings				
Good with all	46.2	986	9.4	941
Good with some	47.9	48	8.9	79
Good with none	80.0	5	11.1	18
Family Control Scale				
Low	50.7	682	9.5	545
High	38.5	392	8.5	541

**Table 2. Proportion of the Sample Youth with Premarital Sex Experience by Family
and Individual Background Measures and Sex of Respondents (continued)**

Characteristics	Male		Female	
	Percent	N	Percent	N
PERSONAL BACKGROUND				
Self-esteem Scale				
Low	52.3	511	11.9	556
High	40.9	563	6.2	529
Personal Values Scale				
Low	45.7	506	10.1	444
High	46.8	568	8.4	643
Visiting Nightclubs/Pubs/Bars				
Not at all	33.5	597	9.7	745
At least once a week	62.2	471	7.2	333
Everyday	66.7	6	28.6	7
Drinking				
Not at all	35.8	226	7.6	236
At least once a week	58.7	530	14.0	215
Everyday	87.8	49	33.3	6
Not drinkers	23.0	269	7.8	628
Sexual Experience of Peers				
Yes, for most	69.1	346	20.3	138
No, for most	32.0	596	6.5	708
Liberal Sexual Attitudes Scale				
Less liberal	37.9	391	6.9	694
More liberal	51.1	683	12.8	390

Table 3. Coefficients (Relative Odds Ratios) and Significance Levels for Various Models Involving Pre-Union Sexual Experience and Combinations of Age, Social Background, Individual, and Family Explanatory Factors, Male and Female Youth Ages 15-24 in Thai

Sex and Group of Explanatory Factors[a]	Model 1 Base Models: Explanatory Factors Taken Separately — Alone		With Age		Model 2.a Social Background Factors and Age		Model 2.b Individual Factors and Age		Model 2.c Family Factors and Age		Model 3 All Explanatory Factors	
	Coefficient	sig.	Coefficient	sig.	Coefficient	sig.	Coefficient	sig.	Coefficient	sig.	Coefficient	sig.
MALES												
A Age	3.327	***	---		3.336	***	3.125	***	3.535	***	1.558	***
B Social Background												
In School	0.380	***	0.771		0.716						1.028	
Urban Resident	1.034		0.968		0.928						0.350	***
Parent's Education												
None (ref. category)												
Elementary	0.583		0.726		0.660						0.723	
Middle High School	0.593		1.006		1.107						1.491	
College or Higher	0.653		0.977		0.919						1.708	
Financial Status												
Just enough (ref. Category)	---		---									
No income (not working)	4.457	***	2.073	**	6.837	***					1.817	*
Can save some	1.777	***	1.609	**	2.441	***					1.295	
Not enough/borrows	0.991		0.854		1.364						4.662	**
C Individual Characteristics												
Clubbing Last Month												
Never Went Clubbing												
Infrequent	3.118	***	2.98	***			3.498	***			2.902	***
Once a week - every day	2.780	***	3.756	***			4.748	***			5.886	***
Drinking Last Month												
Never Went Drinking												
Infrequent	2.091	***	1.754	**			1.961	**			1.710	
Once a week - every day	6.342	***	4.313	***			3.613	***			4.141	***
Self Esteem Scale	0.665	***	0.673	***			0.865				0.893	
Personal Values Scale	1.149		1.093				1.366				1.309	
Has Liberal Sexual Attitudes	1.130	***	1.120	***			1.106	**			1.079	
Peer Influence	4.648	***	3.364	***			3.693	***			3.224	***
D Family												
Co-residence with Parents												
With both parents (ref. Category)	---		---									
With Mother or Father	1.513	**	1.157						1.200		1.459	
With Neither	2.767	***	2.212	***					1.859	**	2.102	*
Relationship with Parents												
Good with Both (ref. Category)												
Good with Mother or D80Father Only	2.293	***	2.358	***					2.231	***	1.766	*
Good with Neither	1.591	*	1.274						1.444		1.169	
Relationship with Siblings												
Good with Both (ref. Category)	---		---									
Good with Some	0.927		1.326						1.110		1.277	
Good with None	2.955		2.931						10.157		5.958	
Family Control Scale	0.018	***	0.112	**					0.063	*	0.661	
-2 Log Likelihood			1205.478[b]		937.369		377.686		969.215		355.397	
degrees of freedom			1		9		9		(8)		24	

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Table 3. Coefficients (Relative Odds Ratios) and Significance Levels for Various Models Involving Pre-Union Sexual Experience and Combinations of Age, Social Background, Individual, and Family Explanatory Factors, Male and Female Youth Ages 15-24 in Thai (continued)

Sex and Group of Explanatory Factors[a]	Model 1 Base Models: Explanatory Factors Taken Separately — Alone		Model 1 — With Age		Model 2.a Social Background Factors and Age		Model 2.b Individual Factors and Age		Model 2.c Family Factors and Age		Model 3 All Explanatory Factors	
	Coefficient	sig.	Coefficient	sig.	Coefficient	sig.	Coefficient	sig.	Coefficient	sig.	Coefficient	sig.
FEMALES												
A Base (Age only)			2.882	***	2.285	***	2.71	***	2.929	***	1.435	***
B Social Background												
In School	0.050	***	0.081	***	0.055	***					0.032	***
Urban Resident	1.710	*	1.627	**	3.161	***					2.030	
Parent's Education												
None (ref. category)												
Elementary	0.420		0.455		0.594						0.743	
Middle High School	0.435		0.588		1.055						2.556	
College or Higher	0.120	*	0.200		0.756						3.518	
Financial Status												
Just enough (ref. Category)		**		*								
No income (not working)	2.788	*	2.430		1.107						1.662	
Can save some	1.610		1.999	*	1.813						0.450	
Not enough/borrows	0.730		0.989		0.767						9.480	
C Individual Characteristics												
Clubbing Last Month												
Never Went Clubbing												
Infrequent	0.632		0.757				0.895				0.619	
Once a week - every day	0.433	*	0.496				0.400				0.558	
Drinking Last Month												
Never Went Drinking		*										
Infrequent	1.038		0.762				0.729				0.774	
Once a week - every day	1.816	*	1.339				1.190				2.134	
Self Esteem Scale	0.499	*	0.507	**			0.557	*			0.753	
Personal Values Scale	0.724		0.522	**			0.787				0.995	
Has Liberal Sexual Attitudes	1.141	*	1.128	*			1.158	*			1.265	*
Peer Influence	5.451	***	4.150	***			4.026	***			1.792	
D Family												
Co-residence with Parents												
With both parents (ref. Category)		***		***								
With Mother or Father	2.359	**	1.943						1.851		2.702	
With Neither	4.920	***	4.533	***					6.293	***	5.087	**
Relationship with Parents												
Good with Both (ref. Category)												
Good with Mother or Father Only	1.893	*	2.075	*					1.539		1.434	
Good with Neither	1.672		1.278						0.873		0.466	
Relationship with Siblings												
Good with Both (ref. Category)												
Good with Some	0.986		0.971						0.858		1.232	
Good with None	0.728		1.444						1.490		11.033	
Family Control Scale	2.962		20.576	*					1.660		0.171	
-2 Log Likelihood			519.819[b]		337.767		357.554		400.133		355.397	
degrees of freedom			1		9		9		8		24	

a. Response variable is the log odds of pre-union sexual experience. The models were estimated with the SPSS Logit procedure. The symbol * indicates that a coefficient is significantly different from zero with a two-sided p ? 0.05; the symbol ** indica

b. Model with age alone.

Source: Thailand 1994 Family and Youth Survey (FAYS); male N = 601; female N = 571

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